

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD  
SAN FRANCISCO BAY REGION

ORDER NO. 88-053

NPDES NO. CA0004961

WASTE DISCHARGE REQUIREMENTS FOR:

TOSCO CORPORATION  
AVON REFINERY  
CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereafter called the Board) finds that:

1. Tosco Corporation, Avon Refinery (hereafter called the Discharger) submitted an NPDES Permit Application dated October 29, 1986, and amended it by a letter dated October 27, 1987 for reissuance of NPDES Permit No. CA0004961.
2. The discharge of wastewater from the facilities is currently governed by Waste Discharge Requirements, Board Order No. 85-24.
3. The Discharger operates a petroleum refinery with a maximum crude-run throughput of approximately 122,500 barrels per day. It manufactures gasoline and other hydrocarbon fuels and is classified as a cracking refinery as defined by the U.S. Environmental Protection Agency in 40 CFR 419.20. The Discharger also operates a sulfuric acid plant. Treated process wastewater, stormwater runoff, and other wastes as described below are discharged to Suisun Bay, a water of the United States.
4. The report of waste discharge and recent self-monitoring reports describe the discharges as follows:
  - a. Waste 001 consists of approximately 3.7 million gallons per day (mgd) of process wastes, cooling tower blowdown, sanitary wastes, stormwater runoff, and other wastes from the sulfuric acid plant. In addition, approximately 0.166 mgd of cooling tower and boiler blowdown is received from a cogeneration plant owned by Foster-Wheeler Corporation, 0.029 mgd of process wastewater is received from the Monsanto Company Catalyst Plant and approximately 0.032 mgd of cooling tower blowdown is received from a carbon-dioxide plant owned by Carbonic Engineering. Also, stormwater runoff is received from Monsanto Company, Southern Pacific Pipeline Terminal, Southern Pacific Transportation Company, Texaco Metering Station, Carbonic Engineering, Pacific Gas and Electric Substation, and Foster Wheeler Energy Corporation. The treated waste is discharged through a diffuser which provides at least 10:1 dilution, located under the Avon Wharf in Suisun Bay. Waste 001 may be discharged on an emergency basis to an unnamed estuary tributary to Suisun Bay. This discharge is a safety overflow for the discharger's canal system, and is permitted only to prevent severe damage to canal dikes.

- b. Waste 003 is stormwater runoff from the area south of the AT & SF Railroad tracks and west of Solano Way (the central and southwestern portion of the tank farm located in this area). It is discharged via a pipe into Walnut Creek north of its confluence with Grayson Creek.
  - c. Waste 004 is stormwater runoff from the area north of Highway 4 and west of Solano Way (the south end of the tank farm located in this area). It normally is combined with Waste 001, but may be discharged into the head of Hastings Slough.
- 5. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin, (Basin Plan), on December 17, 1986, and the State Water Resources Control Board approved the Plan on May 21, 1987. The provisions of this permit are consistent with the objectives of the Basin Plan.
  - 6. The beneficial uses of Suisun Bay, Hastings Slough, and Walnut Creek are:
    - a. Water contact recreation
    - b. Non-contact water recreation
    - c. Navigation
    - d. Open commercial and sport fishing
    - e. Wildlife habitat
    - f. Estuarine habitat
    - g. Fish spawning and migration
    - h. Industrial uses
    - i. Preservation of rare and endangered species
    - j. Shellfishing
  - 7. The issuance of waste discharge requirements for this discharge is exempt from the provisions of Chapter 3 (commencing with Section 21110) of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.
  - 8. Effluent limitations and toxic effluent standards established pursuant to Sections 208(b), 301, 304, and 307 of the Federal Water Pollution Control Act and amendments thereto are applicable to the discharge.
  - 9. Effluent limitation guidelines requiring the application of best available technology economically achievable (BAT) have been promulgated by the U.S. Environmental Protection Agency for the Petroleum Refining Point Source Category 40 CFR Part 419 on October 18, 1982 and amended on July 12, 1985. Effluent limitations of this Order are based on these guidelines, the Basin Plan, State Plans and Policies, current plant performance, and best professional judgement. The limitations are considered to be those attainable by BAT in the judgement of the Board.
  - 10. Under 40 CFR 122.44, "Establishing Limitations, Standards, and Other Permit Conditions," NPDES permits should also include toxic pollutant limitations if the discharger uses or manufactures a toxic pollutant as an intermediate or final product or byproduct. This permit may be modified prior to the expiration date to include effluent limitations for toxic constituents determined to be present in significant

amounts in the discharge through a more comprehensive monitoring program included as a part of this Order.

11. This Order contains effluent limits based on recent production rates at this facility. The Board is aware that production can vary and commits to expediting reissuance of a new permit upon receipt of an application with new production data.
12. The Board has notified the Discharger and interested agencies and persons of its intent to reissue waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
13. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the Discharger, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Federal Water Pollution Control Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. Effluent Limitations

1. The discharge of Waste 001 containing constituents in excess of the following limits is prohibited:

<u>Constituent</u>	<u>Units</u>	<u>30-day Average</u>	<u>Maximum Daily</u>
BOD (5-day @ 20 deg. C)	lbs/day	1384	2491
	kg/day	629	1132
TSS	lbs/day	1107	1736
	kg/day	503	789
COD	lbs/day	9661	18618
	kg/day	4392	8463
Oil and Grease	lbs/day	403	755
	kg/day	183	343
	mg/l	10	20
Phenolic Compounds	lbs/day	6.68	18.6
	kg/day	3.04	8.46
Ammonia as N	lbs/day	755	1661
	kg/day	343	755
Sulfide	lbs/day	7.30	16.4
	kg/day	3.32	7.43
Total Chromium	lbs/day	7.82	22.51
	kg/day	3.56	10.23
Hexavalent Chromium	lbs/day	0.640	1.439
	kg/day	0.291	0.654
Settleable Solids	ml/l-hr	0.1	0.2

2. In addition to the 30-day average and daily maximum pollutant weight allowances shown in A.1, allocations for pollutants attributable to stormwater runoff and ballast water discharged as a part of Waste 001 are permitted in accordance with the following schedules:

STORMWATER RUNOFF

<u>Constituent</u>	<u>Units</u>	<u>30-Day Average</u>	<u>Maximum Daily</u>
BOD (5-day @ 20 deg. C)	mg/l	26	48
TSS	mg/l	21	33
COD	mg/l	180	360
Oil and Grease	mg/l	8	15
Phenolic Compounds	mg/l	0.17	0.35
Total Chromium	mg/l	0.21	0.60
Hexavalent Chromium	mg/l	0.028	0.062

BALLAST WATER

<u>Constituent</u>	<u>Units</u>	<u>30-Day Average</u>	<u>Maximum Daily</u>
BOD (5-day @ 20 deg. C)	mg/l	26	48
TSS	mg/l	21	33
COD	mg/l	240	470
Oil and Grease	mg/l	8	15
pH	Within the range of 6.0 to 9.0		

The total effluent limitation for the discharge is the sum of the stormwater runoff allocation, the ballast water allocation and the mass limits contained in A.1. The total effluent limitation (both maximum and average) is to be computed by the Discharger on a monthly basis as shown in Part B of the Monitoring.

3. Waste 001 shall not contain a chlorine residual in excess of 0.0 mg/l.
4. Waste 001 shall not have a pH less than 6.0 nor greater than 9.0.

5. The discharge of Waste 001 containing constituents in excess of the following limits is prohibited:

<u>Constituent</u>	<u>Units</u>	<u>Maximum Daily</u>
a. Arsenic	ug/l	200
b. Cadmium	ug/l	30
c. Chromium (VI) <sup>a</sup>	ug/l	110
d. Copper	ug/l	200
e. Cyanide	ug/l	25 <sup>b</sup>
f. Lead	ug/l	56
g. Mercury	ug/l	1
h. Nickel	ug/l	71
i. Silver	ug/l	23
j. Zinc	ug/l	580
k. Phenols	ug/l	500
l. PAHs <sup>c</sup>	ug/l	150

- a. The Discharger may at their option meet this limit as total chromium.
- b. The Discharger has initiated a proposal for an alternate limit for cyanide following procedures outlined in the Basin Plan. A time schedule for submittal of a proposed alternate limit is presented in the Provisions section of this order.
- c. As identified by EPA Method 610. If a discharge exceeds the limit for PAHs, concentrations of individual constituents should be reported.
6. The survival of test fishes in 96 hour parallel continuous flow-through bioassays of the discharge of Waste 001 shall not be less than 50 percent for each of two species. Two fish species shall be used, one shall be three spine stickleback, and the other shall be either rainbow trout or fathead minnow.

7. The discharge of Wastes 003, and 004 containing constituents in excess of the following limits is prohibited:

<u>Constituent</u>	<u>Units</u>	<u>Maximum Daily</u>
Oil and Grease	mg/l	15
TOC	mg/l	110
pH	pH units	6.5-8.5
Visible oil	observation	none
Visible color	observation	none

8. Total coliform bacteria for a median of 5 consecutive samples of Waste 001-D1 and 001-D2 shall not exceed 240 MPN/100 ml. Any single sample shall not exceed 10,000 MPN/100 ml when verified by a repeat sample taken within 48 hours.

B. Receiving Water Limitations

1. The discharge of wastes shall not cause the following conditions to exist in waters of the State at any place at levels that cause nuisance or adversely affect beneficial uses:
  - a. Floating, suspended, or deposited macroscopic particulate matter or foam;
  - b. Bottom deposits or aquatic growths;
  - c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;
  - d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;
  - e. Toxic or deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.
2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:
  - a. Dissolved oxygen: 7.0 mg/l minimum. The median dissolved oxygen concentration for any three consecutive months shall not be less than 80 percent of the dissolved oxygen content at saturation.
  - b. Dissolved sulfide: 0.1 mg/l maximum.

c. pH: The pH shall not be depressed below 6.5 nor raised above 8.5, nor caused to vary from normal ambient pH levels by more than 0.5 units.

d. Un-ionized ammonia (as N): 0.025 mg/l Annual Median,  
0.16 mg/l Maximum at any time.

3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 or the Federal Water Pollution Control Act or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

C. Provisions

1. Waste 001 shall receive an initial dilution of at least 10:1.
2. Compliance with Effluent Limitation A.5.e. or any amendments to Effluent Limitation A.5.e. shall be achieved according to the following time schedule:

Task

Compliance Date

a. Complete an investigation to determine if all sources of cyanide are being controlled through the application of all reasonable treatment and source control measures and submit a report on the findings. If the report determines that all sources of cyanide are not being controlled through the application of all reasonable treatment and source control measures, then the report shall include a schedule of actions along with milestone dates, acceptable to the Board's Executive Officer which will assure that all sources of cyanide are being controlled through the application of all reasonable treatment and source control measures.

September 1, 1988

b. Achieve full compliance with Effluent Limitation A.5.e. or submit a proposed alternate cyanide effluent limit. If the Discharger is proposing an alternate cyanide effluent limit, then the Discharger must complete an investigation and submit a report in conformance with the 1986 Basin Plan. The report shall include an assessment of the

July 1, 1989



impact of the proposed alternate cyanide effluent limit on the beneficial uses of the receiving water, and must include a demonstration that the costs of additional measures do not bear a reasonable relationship to the level of beneficial uses protected by such additional measures. The report shall also include a schedule of specific control strategies along with milestone dates, acceptable to the Board's Executive Officer, for the control of non-point sources of pollution (including urban runoff) within or upstream from the Discharger's receiving water segment in order to reduce uncertainty regarding the Discharger's contribution to the total pollutant load.

c. Achieve full compliance with the cyanide limit listed under Effluent Limitation A.5.e. of this order or an alternate to Effluent Limitation A.5.e. which is approved by the Board.

November 1, 1989

d. Submit annual progress reports quantifying any improvements in the amount of cyanide reaching the Discharger's receiving water segment from the Discharger's effluent and/or from non-point sources of pollution.

March 1 (each year from 1990 through 1994)

3. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Water Pollution Control Act, or amendments thereto, and shall take effect at the end of ten days from the date of hearing provided the Regional Administrator, U.S. Environmental Protection Agency, has no objections.
4. This permit shall be modified or alternatively revoked and reissued to comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(c), and (d), 303, 304(b)(2), and 307(a)(2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
  - (a) Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or,
  - (b) Controls any pollutant not limited in the permit.

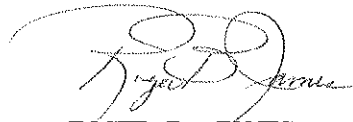
The permit as modified or reissued under this paragraph shall also contain any other requirements of the Act then applicable.

5. The discharger shall comply with the attached self-monitoring program as adopted by the Board and as may be amended by the Board pursuant to EPA regulations 40 CFR 122.62, 122.63, and 124.5.
6. Pursuant to EPA regulations 40 CFR 122.44, 122.62, and 124.5, this permit may be modified prior to the expiration date to include effluent limitations for toxic constituents determined to be present in significant amounts in the discharge through a more comprehensive monitoring program included as part of this Order.
7. Pursuant to EPA regulation 122.62, this permit may be modified prior to the expiration date to include a revised stormwater allocation factor, based upon flow measurement data submitted by the discharger.
8. The discharger is considering the use of reclaimed water from the Central Contra Costa Sanitary District. The use of this water may necessitate the modification of the basis of some of the waste discharge limits contained in this order. Pursuant to EPA regulation 122.45(g) the Board will consider the appropriateness of net effluent limits for pollutants present in the reclaimed wastewater.
9. Pursuant to EPA regulation 122.62, this permit may be modified prior to the expiration date to include a revised limit for cyanide. The discharger will present a proposal for an alternate limit for cyanide pursuant to chapter 4 of the Basin Plan.
10. The Discharger shall develop and submit a Best Management Practices (BMP) program to the Board by September 1, 1988. The BMP program shall be consistent with the EPA regulations 40 CFR 125, Subpart K and the general guidance contained in the "NPDES Best Management Guidance Document", EPA Report No. 600/9-79-045, December 1979 (revised June 1981). The BMP program shall specifically address segregating non-contaminated stormwater from the wastewater treatment system. A BMP program acceptable to the Executive Officer shall be implemented by December 1, 1988.
11. All applications, reports, or information submitted to the Board shall be signed and certified pursuant to Environmental Protection Agency regulations 40 CFR 122.41(k).
12. Pursuant to Environmental Protection Agency regulations [40 CFR 122.41(a)] the discharger must notify the Board as soon as it knows or has reason to believe (1) that they have begun or expect to begin, use or manufacture a toxic pollutant not reported in the permit application, or (2) a discharge or a toxic pollutant not limited by this permit has occurred, or will occur, in concentrations that exceed the specified limits.
13. Discharge of Waste 001 through the alternate discharge point to an unnamed slough tributary to Suisun Bay shall occur only when the discharge is necessary to prevent severe damage to treatment facilities or a more adverse effect on the receiving waters.

The Board shall be notified prior to each use of this alternate discharge point.

14. Order No. 85-24 is hereby rescinded.
15. This Order includes all items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated December, 1986.
16. This Order expires on April 20, 1993 and the discharger must file a Report of Waste Discharge in accordance with Title 23, California Administrative Code, not later than 180 days in advance of such date as application for issuance of new waste discharge requirements.
17. The discharger shall comply with all specifications and provisions of this order immediately upon adoption except as noted below.

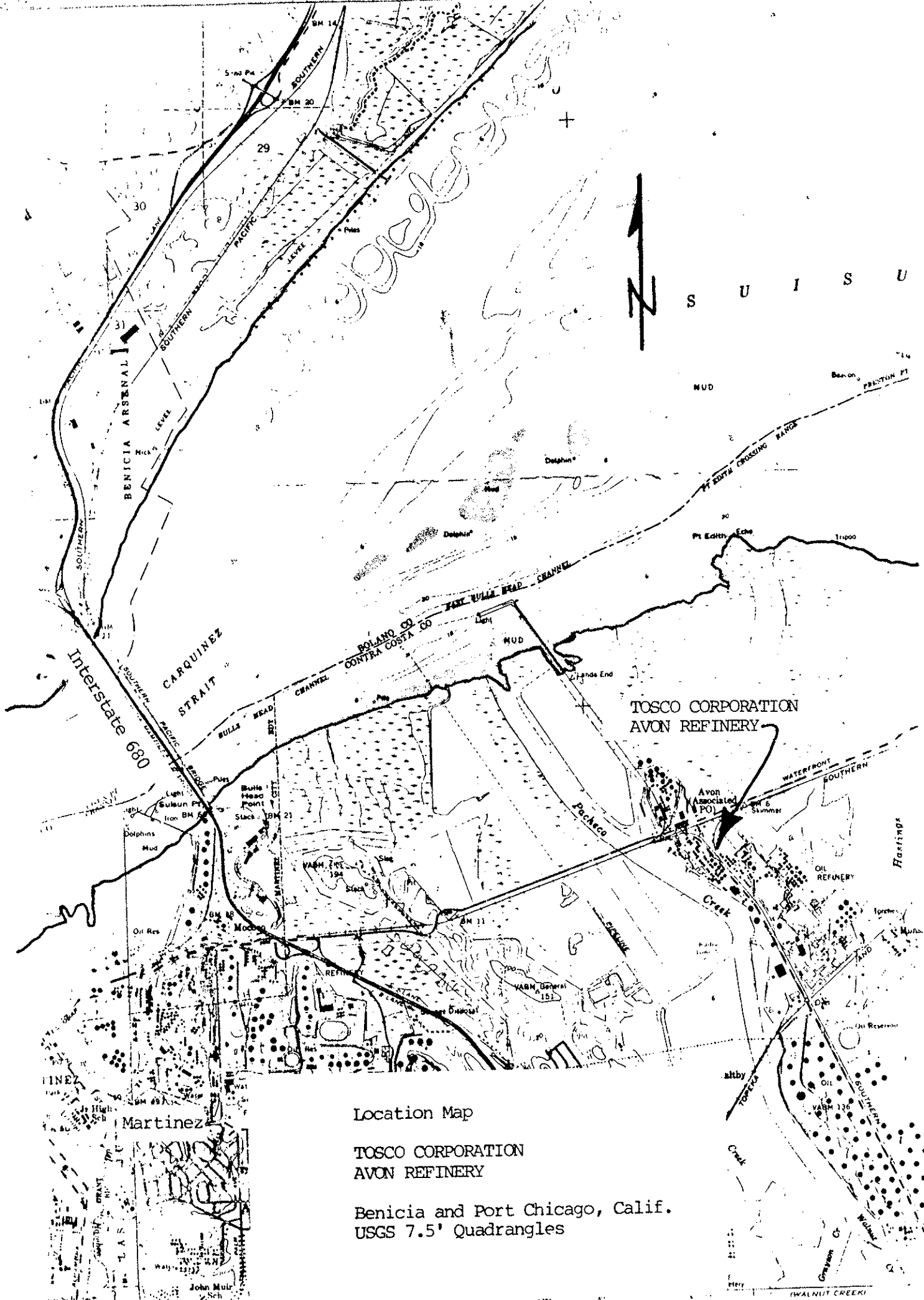
I, Roger B. James, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on April 20, 1988.



ROGER B. JAMES  
Executive Officer

Attachments:

Location Map  
Standard Provisions, Reporting  
Requirements and Definitions dated December 17, 1986.  
Self-Monitoring Program



Location Map

TOSCO CORPORATION  
AVON REFINERY

Benicia and Port Chicago, Calif.  
USGS 7.5' Quadrangles

SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM  
FOR

TOSCO CORPORATION  
AVON REFINERY

NPDES NO. CA0004962

ORDER NO. 88-053

CONSISTS OF

PART A (dated December 1986)

AND

PART B

## PART B

### I. DESCRIPTION OF SAMPLING STATIONS

#### A. EFFLUENT

<u>Station</u>	<u>Description</u>
E-001	At any point in the outfall leading to the deepwater diffuser, where all wastes tributary thereto are present and well mixed.
E-001-D1	At any point in the Tract 1 sanitary sewer where adequate disinfection is assured.
E-001-D2	At any point in the Tract 2 sanitary sewer where adequate disinfection is assured.
E-003	At any point in the outfall from the Waste 003 separating sump.
E-004	At any point in the outfall from the Waste 004 separating sump.

#### B. RECEIVING WATERS

<u>Station</u>	<u>Description</u>
C-10	At a point in Suisun Bay, located over the geometric center of the deepwater diffuser.
C-11	At a point in Suisun Bay along the northern face of Avon Wharf and 95-feet generally west-southwest from Station C-10.
C-12	At a point in Suisun Bay 95-feet generally east-northeast from Station C-10.
C-40	An arc in the drainage channel which receives Waste 003, not more than ten feet from the point of discharge of Waste 003.
C-50	An arc in the drainage channel which receives Waste 004, not more than ten feet from the point of discharge of Waste 004.
C-R1	At a point in Suisun Bay located about 400 feet east northeast from Station C-10.
C-R2	At a point in Suisun Bay located about 1000 feet west southwest from Station C-10.

### II. SCHEDULE OF SAMPLING AND ANALYSIS

- A. The schedule of sampling and analysis shall be that given in

Table 1 (attached).

- B. Sample collection, storage, and analyses shall be performed according to the latest 40 CFR Part 136 or other methods approved and specified by the Executive Officer.

### III. MISCELLANEOUS REPORTING

- A. The discharger shall record the rainfall on each day of the month.
- B. The discharger shall determine the stormwater runoff/ballast water allocation (daily & monthly) for its discharge using the method described in attached Form A. Form A shall be submitted with the monthly self-monitoring report. The daily maximum allocation must be computed for each day Waste 001 is monitored.
- C. The discharger shall retain and submit (when required) the following information concerning the monitoring program for organic and metallic pollutants.
- Description of sample stations, times, and procedures.
  - Description of sample containers, storage, and holding time prior to analysis.
  - Quality assurance procedures together with any test results for replicate samples, sample blanks, and any quality assurance tests, and the recovery percentages for the internal and surrogate standards.
- D. The discharger shall submit in the monthly self-monitoring report the metallic & organic test results together with the detection limits (including unidentified peaks). All unidentified (non-Priority Pollutant) peaks detected in the EPA 624 and 625 test methods shall be identified and semi-quantified. Hydrocarbons detected at < 10 ug/l based on the nearest internal standard may be appropriately grouped and identified together as aliphatic, aromatic and unsaturated hydrocarbons. All other hydrocarbons detected at >10 ug/l based on the nearest internal standard shall be identified and semi-quantified.
- E. Ballast water treated and discharged as part of Waste 001 shall be metered and the volume recorded in attached Form A for each calendar day. The 30-day average shall be the sum of the daily values in a calendar month divided by the number of days in that month. Ballast-water allocations shall be calculated by multiplying the volume of ballast water, determined above by the appropriate concentration listed under Effluent Limitation A.2. in the permit.

### III. SCHEDULE OF SAMPLING AND ANALYSIS

- a. The schedule of sampling and analysis shall be that given in

Table 1 (attached).

- b. Sample collection, storage, and analysis shall be performed according to the latest 40 CFR Part 136 or other methods approved and specified by the Executive Officer of this Regional Board


IV. MODIFICATIONS TO PART A

- A. Exclude paragraphs D.3., E.4., F.3., and F.5.
- B. Paragraph D.2.a. shall be modified as follows:

Composite samples of effluent shall be collected on random weekdays and on any day when substantial changes in flow occur during dry weather conditions.

I, Roger B. James, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Order No. \_\_\_\_\_.
2. Is effective on the date shown below.
3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the Discharger and revisions will be ordered by the Executive Officer, pursuant to 40 CFR 122.62 and 124.4.

  
ROGER B. JAMES  
EXECUTIVE OFFICER

Effective Date April 28, 1988

Attachments:  
Table 1  
Form A







LEGEND FOR TABLE 1

TYPES OF SAMPLES

G = grab sample  
C-24 = composite sample - 24-hour  
Cont = continuous sampling  
O = observation

TYPES OF STATIONS

I = intake stations  
E = waste effluent stations  
C = receiving water stations  
B = bottom sediment stations

FREQUENCY OF SAMPLING

E = each occurrence  
D = once each day  
W = once each week  
2/W = 2 days per week  
M = once each month  
2M = every 2 months  
Y = once each year  
2Y = twice each year  
cont = continuous

FOOTNOTES FOR TABLE 1

- (1) Oil and grease sampling shall consist of 3 grab samples taken at 2 hour intervals during the sampling day, with each grab being collected in a glass container. The entire volume of each sample shall be composited prior to analysis. Each glass container used for sample collection or mixing shall be thoroughly rinsed with solvent rinsings as soon as possible after use, and the solvent rinsings shall be added to the composite wastewater sample for extraction and analysis.
- (2) Daily minimum and maximum shall be reported.
- (3) The discharger shall determine compliance utilizing flow-through bioassays. Immediately upon the death of over half the test fish, the LC-50 of the discharge shall be determined using at least 4 dilutions in a static bioassay.
- (4) Receiving water analysis for sulfides should be run when dissolved oxygen is less than 5.0 mg/l.
- (5) Volatile Organic Toxic Pollutants shall be analyzed using EPA Method 624 of the July, 1982, Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, EPA-600/4-82-057.

- (6) Acid and Base/Neutral Extractable Organic Toxic Pollutants shall be analyzed using EPA Method 625 of the July, 1982, Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, EPA-600/4-82-057.
- (7) Grab samples shall be collected coincident with samples collected for the analysis of the regulated parameters. In addition, the grab samples must be collected in glass containers.
- (8) Polynuclear Aromatic Hydrocarbons shall be analyzed using EPA Method 610 of the July, 1982, Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater. Note that the samples must be collected in amber glass containers. These samples shall be collected coincident with samples collected for the analysis of the regulated parameters. An automatic sampler which incorporates glass sample containers and keeps the samples refrigerated at 4 C and protected from light during compositing may be used. Note that the 24-hour composite samples may consist of eight grab samples collected at three-hour intervals. The analytical laboratory shall remove flow-proportioned volumes from each sample vial or container for the analysis.
- (9 ) Soluble BOD is defined here as the 5-day, 20°C BOD of filtrate that passes through a standard glass fiber filter as described in Standard Methods for the Examination of Water and Wastewater, 15th Edition, Part 209 B., APHA, AWWA, WPCF, (1980).
- (10) Selenium must be analyzed only by the atomic absorption, gaseous hydride procedure (EPA Method No. 270.3/ Standard Method No. 303 E).

STORMWATER/BALLAST WATER ALLOCATION PROCEDURE

This procedure uses a bankbook to inventory stormwater. Any stormwater in excess of the estimated processed stormwater is inventoried. Stormwater allocations are calculated using the actual processed stormwater developed in the attached table.

Definitions:

Dry Weather Season - The months of June to September exclusive of a one-week period following any rainstorm.

Estimated Dry Weather Process Wastewater Flow - The average effluent flowrate during the previous dry weather season.

Stormwater Runoff - The product of the inches of rainfall and the runoff factor.

Estimated Processed Stormwater - The difference between the actual effluent flowrate and the ballast water plus dry weather flowrate.

Stormwater Bankbook - Calculated inventoried stormwater.

Actual Process Stormwater - If the stormwater bankbook is not zero, the actual processed stormwater equals the estimated flow. If the bankbook is zero, the actual processed stormwater is equal to the stormwater runoff for that day plus the bankbook for the previous day.

(A) (B) (C) (D) (E) (F) (G) (H)

**Previous Month's Bankbook =**

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**MAXIMUM**

COLUMN (D) = (Dry-Weather Effluent Flow)

(Documented Process Water Increment)

Column (F) = 0 if Column (F) < 0.

Column (G): If Column (F) > 0, then Column (G) = Column (E).  
If Column (F) = 0, then Column (G) = Column (B) + Column (F) previous day.

# MAXIMUM DAILY LIMITS

DATE	BOD (KG/D)	TSS (KG/D)	(KG/D)	04G (KG/D)	14ENOL (KG/D)	TOTAL CHROME (KG/D)	HEX. CHROME (KG/D)

Maximum Daily Limit = Effluent Limit A.1. + Stormwater Allocation  
(Daily Max in kg/day) (Daily Max)

Stormwater Allocation = Effluent Limit A.2. x Daily Processed Stormwater x 3.785 l/gal  
(Daily Max in mg/l) (in mgd)

te	Mainfall (Inches)	Storm Runoff Flow (Inches x Runoff Factor) Gallons	Ballast Flow in gallons
2			
3			
4			
5			
6			
7			
8			
9			
10			
0-11			
1-12			
2-13			
3-14			
4-15			
5-16			
6-17			
7-18			
8-19			
9-20			
20-21			
21-22			
22-23			
23-24			
24-25			
25-26			
26-27			
27-28			
28-29			
29-30			
30-31			
31-1			
Total			
Monthly Average			

MONTH:

YEAR:

	Allocation	A.I.	Total Effluent
Monthly Average	Storm Runoff+Ballast Water Flow Factor	+ Effluent Limits = Limit	
(expressed in thousand Gals./day)	(kg / 1000 Gals.) = (kg / day)	(kg / day)	
30-Day Average BOD <sub>5</sub>	x 0.098 =	+	-
Limits- TSS	x 0.079 =	+	-
TOC	0.22	+	-
COD	0.68	+	-
O&G	x 0.03 =	+	-
PHENOL	x 0.00064 =	+	-
TOTAL CHROME	x 0.00079 =	+	-
HEX CHROME	x 0.00011 =	+	-